



## **The value chain for valorisation of organic waste in promotion of a circular bioeconomy: A literature review**

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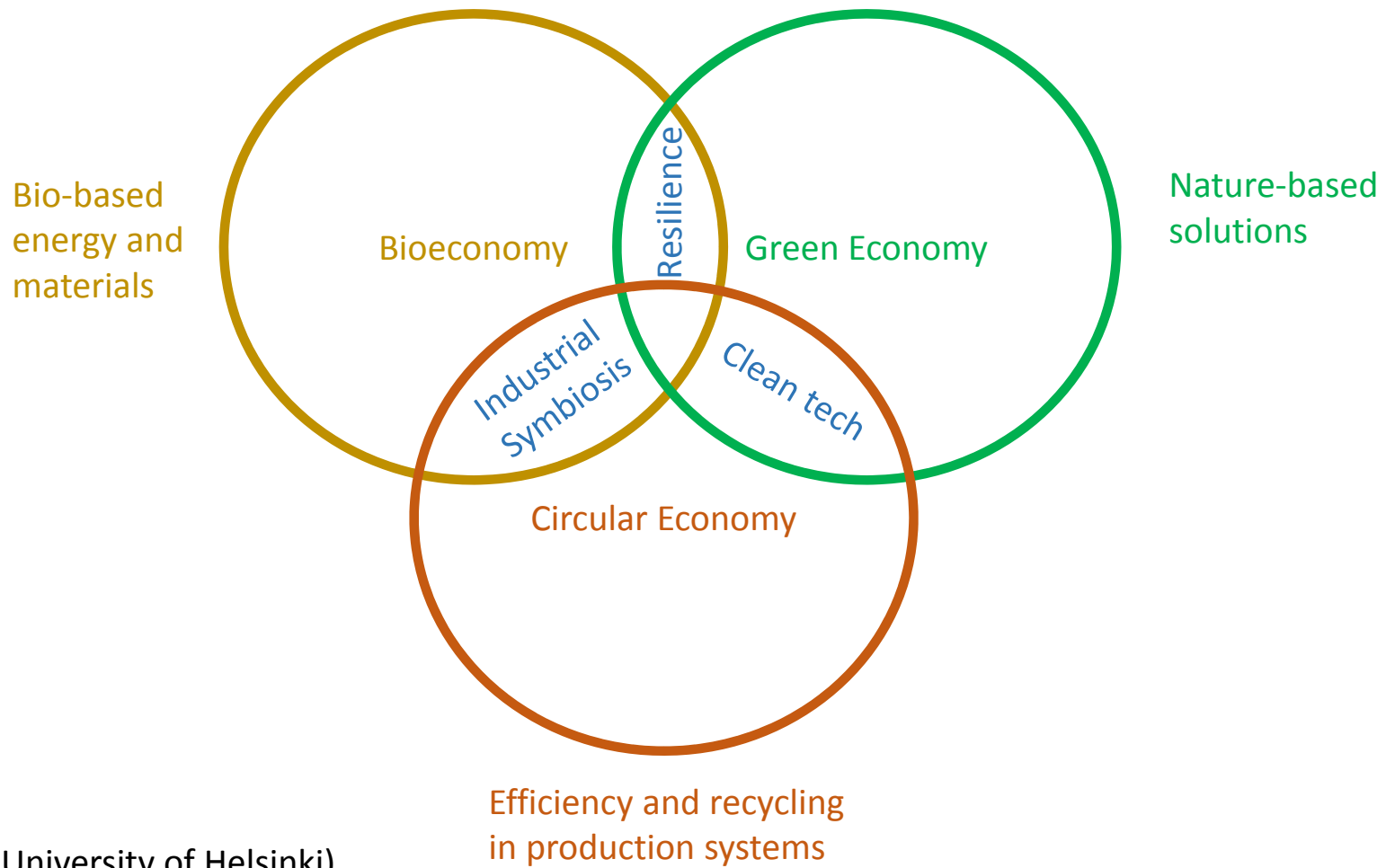
# The value chain for valorisation of organic waste in promotion of a circular bioeconomy: A literature review

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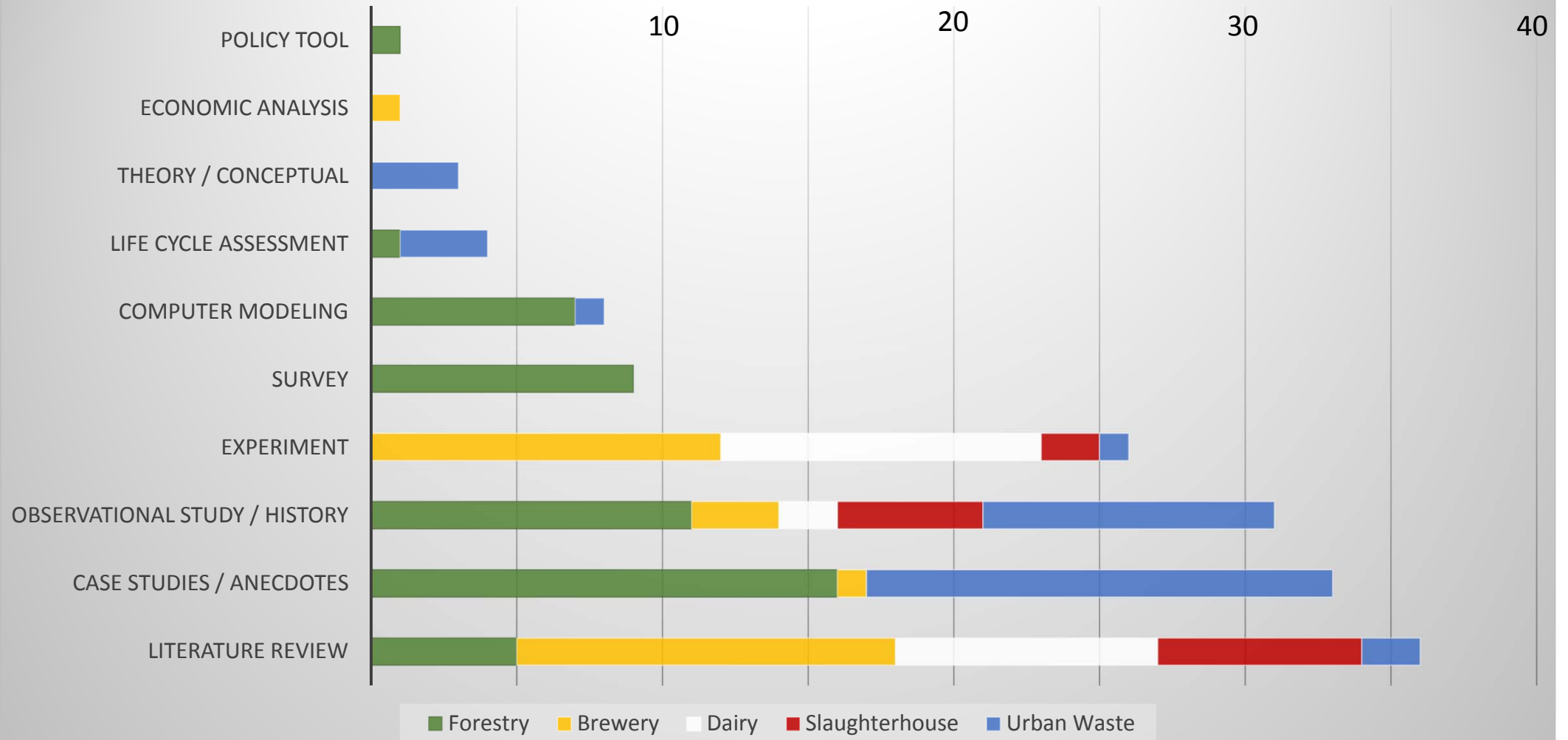


# Why?



(Figure adapted from University of Helsinki)

## Distribution of Methods by Sector



# Preliminary Results

Value Chain	Resource Procurement	Transport and Handling	Transformation and Processing	Valorization and Market	End Use
Forestry	23	12	12	27	10
Slaughterhouse	0	6	2	4	4
Dairy	2	0	6	2	2
Brewery	3	3	8	11	11

Drivers	Policy and Governance	Business Strategies	Economics and Costs	Demand Sectors	Innovation and R&D	Actors and Networks
Forestry	24	32	11	7	14	8
Slaughterhouse	0	0	6	0	0	0
Dairy	4	0	1	4	1	0
Brewery	1	3	11	9	17	1

## Experimentation



### Brewers' Grains

#### Drivers

-Innovation

#### Value Chain

-Market, End use

#### Method

-Experiment



### Dairy Whey

#### Drivers

-Demand Sectors

#### Value Chain

-Transformation & Processing

#### Method

-Experiment

Market, Resource, Policy

Value Chain

Processing, Handling

Methods



### Forestry Sawdust

#### Drivers

-Policy, Business

#### Value Chain

-Resource, Market

#### Method

-Case Studies



### Slaughterhouse By-products

#### Drivers

-Economics & Cost

#### Value Chain

-Transport & Handling

#### Method

-Observational Study

Observation, Case Studies

Push-Pull: complex

# Conclusions



- Roughly 25% of literature on value chains for organic waste valorization are reviews
- Opportunities for sectors to learn from each other (though some resource specific attributes)
- Correlations create unexpected, complex push-pull relationships
  - Innovation as a driver: end use and valorization (e.g. Brewery)
  - Demand as a driver: transformation technology (e.g. Dairy)
  - Economics and cost drivers: transport and handling (e.g. Slaughterhouse)
  - Policy and business strategies: resource procurement (e.g. Forestry)